6, 14. Orange with one broad white median band.

Var. *trichroma* Dautz. Duclos, Illustr. Conch., pl. 28, f. 10, 11. A subsutural band of dark violet, a broad band of white, and a basal band of orange.

Var. *adspersa* Dautz. With small white triangular spots, more or less apparent.

OLIVANCILLARIA GIBBOSA Born.

This species seems to connect the genus Olivancillaria and Agaronia. Tryon placed it in the latter, as the suture is distinct on the spire and not covered by a callous.

Var. *flavescens* Melvill, Proc. Malac. Soc. London, VI, p. 65, 1904. This is what I called var. *aurantia*, (NAUTILUS, vol. 28, p. 103, 1915).

Var. *fulgurans* Melvill. Reeve, Conch. Icon., VI, pl. 8, f. 12b. Yellow, with longitudinal zigzag lines of brown.

Var. *candicans* Melvill. Marrat, Thes. Conch., IV, pl. 19, f. 308. This form is entirely white.

Var. cingulata Sowerby. Chemnitz, Conch. Cab. X, pl. 147, f. 1369, 1370. Var. mediocincta Melvill. This is bluish gray form, with a wide white band, bearing markings of dark brown. A rare variety or an anomaly.

NEW RECORDS OF WESTERN CANADIAN MOLLUSCA

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The mollusks mentioned in this note were collected in various parts of Western Canada during the course of an investigation of the molluscan fauna of that region. In

view of the vast area of this territory (over a million square miles) it is obviously desirable to have as many records from specific localities as possible, in order to gain some knowledge of the local distribution of these forms. It will be seen that some species have been collected much more often than others; this is to some extent the result of imperfect collecting, but is also due in part to the fact that some species are much more abundant and widely distributed than others.

From the information so far collected it seems that in Manitoba, the region of the Precambrian Shield and the adjacent drift-covered areas (collectively, the Boreal or Canadian Zone), have a mollusk fauna which is distinct from that of the Forest-Grassland Transition, and Plains areas situated to the west. The mountain region in Alberta also seems to have its characteristic species. Brief descriptions of these regions have been given in previous papers (NAUTILUS XXXIX, p. 121; XL, p. 53, 56) so that a discussion of the specific facts of distribution and the conditions controling these will be discussed in a later paper, after additional information has been collected.

Family HELICIDAE

Vallonia costata (Müller). MANITOBA: Morris; Stony Mountain; Victoria Beach; Portage la Prairie; Delta; Snake Island, Lake Winnipegosis; near Clearwater (Atikameg) Lake, Hudson Bay Railroad. SASKATCHEWAN: Yonker.

Family PUPILLIDAE

Gastrocopta holzingeri Sterki? MAN.: Portage la Prairie. Strobilops affinis Pilsbry. MAN.: Victoria Beach. Columella edentula (Draparnaud). MAN.: Delta.

Family COCHLICOPIDAE

Cochlicopa lubrica (Müller). ONTARIO: Malachi. MAN.: Whiteshell River District, near Lake Nora, and also near Whiteshell Lake. Morris; Stonewall; Victoria Beach; Berens River, near the Englishman's Rapid; Portage la Prairie; Delta; Sifton.

Family ZONITIDAE

Vitrina limpida Gould. MAN.: Morris; Winnipeg; Westbourne; Ninette.

Polita hammonis (Strom). MAN.: Morris; Stonewall; Victoria Beach; Portage la Prairie; Delta; Dauphin; Snake Island, Lake Winnipegosis.

Euconulus chersinus polygyratus Pilsbry. MAN.: Morris; Berens River, near the Englishman's Rapid; Portage la Prairie; Sifton. SASK.: Yonker. BRITISH COLUMBIA: Lucerne?

Zonitoides arborea (Say). MAN.: Morris; Portage la Prairie; Berens River, near the Englishman's Rapid.

Family ENDODONTIDAE

Gonyodiscus cronkhitei anthonyi Pilsbry. MAN.: Whiteshell River District, near Lake Nora; Victoria Beach; Stonewall; Berens River, near the Englishman's Rapid; Delta; Westbourne; Dauphin; Sifton; Snake Island, Lake Winnipegosis; near Clearwater Lake, Hudson Bay Railroad. B. C.: Lucerne?

Family SUCCINEIDAE

Succinea retusa Lea. MAN.: Indian Bay Station; Morris; St. Norbert; Jackfish Creek near Jacffish Lake (Township 18, Range 8, east of the Principal Meridian); Grand Beach; Beulah.

Succinea ovalis Say. MAN.: Whiteshell River District, island in Whiteshell Lake; Morris; Dauphin. SASK.: Yonker.

Succinea grosvenori Lea. MAN.: Baldur, near Cobbs Lake.

Succinea avara Say. MAN.: Beulah; Dauphin. SASK.: Yonker, Eyehill Creek.

Family LYMNAEIDAE

Lymnaea stagnalis appressa (Say). MAN.: Whiteshell River District, Little Whiteshell Lake (Typha-Zizania), Crow Duck Lake (protected marshy shores), with L. megasoma above Jessica Lake. Molson; Beausejour; Portage la Prairie; Macdonald; Delta; Ninette, Bone Lake; Basswood, Long Lake; Clear Lake, Riding Mountains; Dauphin; Lake Winnipegosis, marsh near the Meadow Portage. SASK.: Kuroki, Fishing Lake; Humbolt, Burton Lake; Yonker, Eyehill Creek.

Lymnaea stagnalis lillianae Baker. MAN.: Indian Bay Station. This is apparently the first record of this variety from the Hudson Bay Drainage.

Lymnaea megasoma (Say). MAN.: Whiteshell River District, shore of Whiteshell River below unnamed lake ten miles below Jessica Lake, quite common among aquatic plants and on the muddy bottom among the willows in protected situations near shore, also found in a quiet bay below third rapid below Betula Lake, and near the eight rapid below Betula Lake.

Lymnaca lanceata (Gould). MAN.: Whiteshell River District, Cross Lake; Mallard Lake; large Zizania marsh below the Whiteshell Lakes; Little Whiteshell Lake (Typha-Zizania).

Lymnaea palustris (Müller). MAN.: Cartier; Stony Mountain; Portage la Prairie; Macdonald; Dauphin; Sifton.

Lymnaca vahlii ("Beck" Moller). MAN.: Molson; Delta?; Portage la Prairie. Lymnaea emarginata (Say). MAN.: Lake Winnipegosis. Lymnaea emarginata var. MAN.: Clear Lake, Riding Mountains; Clearwater Lake, Hudson Bay Railroad.

Lymnaea caperata (Say). MAN.: Molson; Navin; Sifton; Lake Winnipegosis, marsh near the Meadow Portage.

Lymnaea obrussa exigua (Lea). ONT.: Onion Lake near Minaki. MAN.: Clandeboye, Muckle Creek.

Lymnaea obrussa decampi (Streng). MAN.: Clearwater Lake, Hudson Bay Railroad.

Family PLANORBIDAE

Planorbis antrosus striatus Baker. MAN.: Winnipegosis, Mossy River. Lake Winnipegosis.

Planorbis antrosus var. MAN.: Clear Lake, Riding Mountains.

Planorbis campanulatus davisi Winslow. MAN.: Douglas Lake, near Onah. This is the first record of this variety of campanulatus from the Hudson Bay drainage.

Planorbis exacuous Say. MAN.: Whiteshell River District, Whiteshell Lake; Little Whiteshell Lake (*Typha-Zizania*); Zizania marsh below the Whiteshell Lakes; Whiteshell River below the Mallard Lake Portage; small lake on portage between Whiteshell and Crow Duck Lakes. Macdonald; Lake Winnipegosis, marsh near the Meadow Portage, and on the bottom in about five feet of water near Snake Island; Clearwater Lake, Hudson Bay Railroad.

Planorbis deflectus Say. MAN.: Clearwater Lake, Hudson Bay Railroad.

Planorbis hirsutus Gould? MAN.: Whiteshell River District, Whiteshell River below the Mallard Lake Portage. Clearwater Lake, Hudson Bay Railroad.

Planorbis corpulentus Say. MAN.: Indian Bay Station, Falcon Bay.

Planorbula christyi Dall. SASK .: Wadena.

Family PHYSIDAE

Aplexa hypnorum (Linne). MAN.: Whiteshell River

District, with Lymnaea megasoma in Whiteshell River above Jessica Lake; Mallard Lake; Little Whiteshell Lake; Zizania marsh below the Whiteshell Lakes. Near the Seven Sisters Falls, Winnipeg River; Indian Bay Station; Molson; Stony Mountain; Victoria Beach; Treesbank; Steep Rock; Sifton. SASK.: Yonker, Eyehill Creek.

Family ANCYLIDAE

Ferrissia parallela (Haldeman). MAN.: Whiteshell River District, Whiteshell River, on leaves of Nymphaea advena.

Family VIVIPARIDAE

Campeloma decisum (Say). MAN.: Whiteshell River District, Whiteshell River near first portage below White Lake; between fifth and sixth rapids below Betula Lake. Berens River, several miles above the point of junction of the Etomami River, at a depth of about forty-five feet. These records considerably extend the known distribution of this species.

Family VALVATIDAE

Valvata tricarinata (Say). ONT.: Malachi, Malachi Lake. MAN.: Whiteshell River District, Betula Lake (Zizania); between sixth and seventh rapids below Betula Lake. Morris, Morris River; Delta; Ninette, Bone Lake; Clearwater Lake, Hudson Bay Railroad. SASK.: Yonker, Manitou Lake. A single broken shell, apparently several years old, was the only mollusc found in this lake during a short stay in the vicinity.

Family AMNICOLIDAE

Amnicola walkeri Pilsbry. MAN,: Victoria Beach. This is the first record of this species from the Hudson Bay Drainage.

Amnicola limosa porata Say. MAN.: Victoria Beach.